

Coaxial Two Way Switch (DPDT) || BN 754030



Radio frequency characteristics

Interface type (4 connections)	N-f (50 Ω)			
Characteristic impedance	50 Ω			
Frequency range	0 to 1 GHz	1 to 2 GHz	2 to 3 GHz	3 to 5 GHz
VSWR, max.	1.03	1.13	1.13	1.22
Isolation, min.	75 dB	60 dB	60 dB	50 dB
Insertion loss, max.	0.04 dB	0.04 dB	0.06 dB	0.06 dB
Average power capability *	790 W	560 W	450 W	350 W
Peak voltage capability *	3.0 kV			

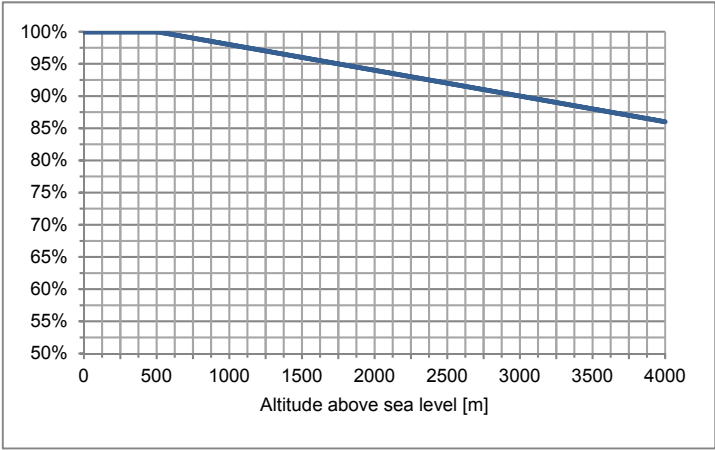
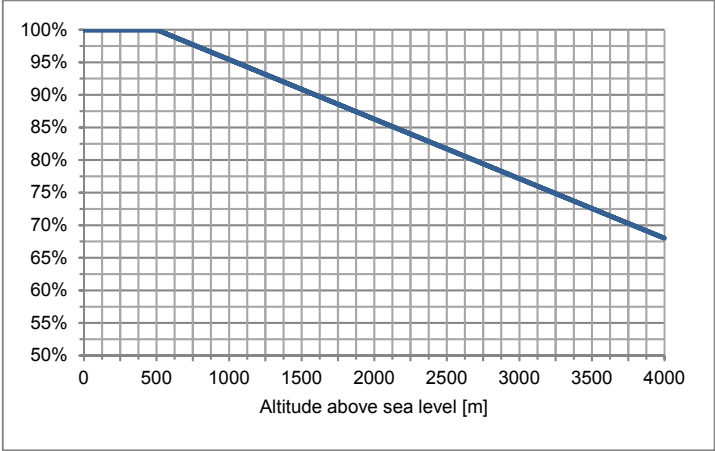
Electrical and mechanical data

Switch type	Two way switch, DPDT	
Actuator type	Solenoid drive, latching, self cutoff	
Connector J1 ** for operating voltage and signaling	9 pole connector according to DIN 41652 / IEC 807-2	
Operating	Operating voltage	23 to 28 V DC
	Operating current, typ. ***	0.6 A
	Stand by current, max. ***	25 mA
	Nominal fuse	The switch must be externally fused with 1 A time-delay by the user
Signal contacts	Maximum ratings	SELV circuits according to IEC EN 60950-1, 42.4 V ACpk / 60 V DC / 0.5 A
	Nominal fuse	The circuit must be externally limited to 0.5 A by the user
Switching time, typ.***	40 ms	
Command hold time, min.	40 ms (during this time, the voltage at control input must not change)	
Switching frequency, max.	10 operations per minute	
Life, min.	250,000 operations	
Weight, approx.	0.6 kg	

Template TD-00002P

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Environmental conditions

Operational conditions	ETSI EN 300 019-1-3 V2.3.2 (2009-1) class 3.1 N																				
Ambient temperature ****	-10 to +45°C																				
Condensation	Not allowed																				
Relative humidity, max.	95%																				
Derating of input power with increasing altitude	<p>The maximum input power can be applied up to 500 m or 1600 ft above sea level unless noted otherwise in the data sheet. Above this height the maximum input power must be reduced as shown in the diagram.</p>  <table border="1"> <caption>Derating of input power with increasing altitude</caption> <thead> <tr> <th>Altitude above sea level [m]</th> <th>Percentage</th> </tr> </thead> <tbody> <tr><td>0</td><td>100%</td></tr> <tr><td>500</td><td>100%</td></tr> <tr><td>1000</td><td>98%</td></tr> <tr><td>1500</td><td>96%</td></tr> <tr><td>2000</td><td>94%</td></tr> <tr><td>2500</td><td>92%</td></tr> <tr><td>3000</td><td>90%</td></tr> <tr><td>3500</td><td>88%</td></tr> <tr><td>4000</td><td>85%</td></tr> </tbody> </table>	Altitude above sea level [m]	Percentage	0	100%	500	100%	1000	98%	1500	96%	2000	94%	2500	92%	3000	90%	3500	88%	4000	85%
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Protection class	III according to IEC EN 61140																				
IP protection level	IP40 according to IEC EN 60529 (all interfaces connected with appropriate gaskets)																				
Installation position	Optional																				
Transport conditions	ETSI EN 300 019-1-2 V2.1.4 (2003-04) class 2.2																				
Ambient temperature	-25 to +70°C																				
Rain, condensation, icing	Not allowed																				

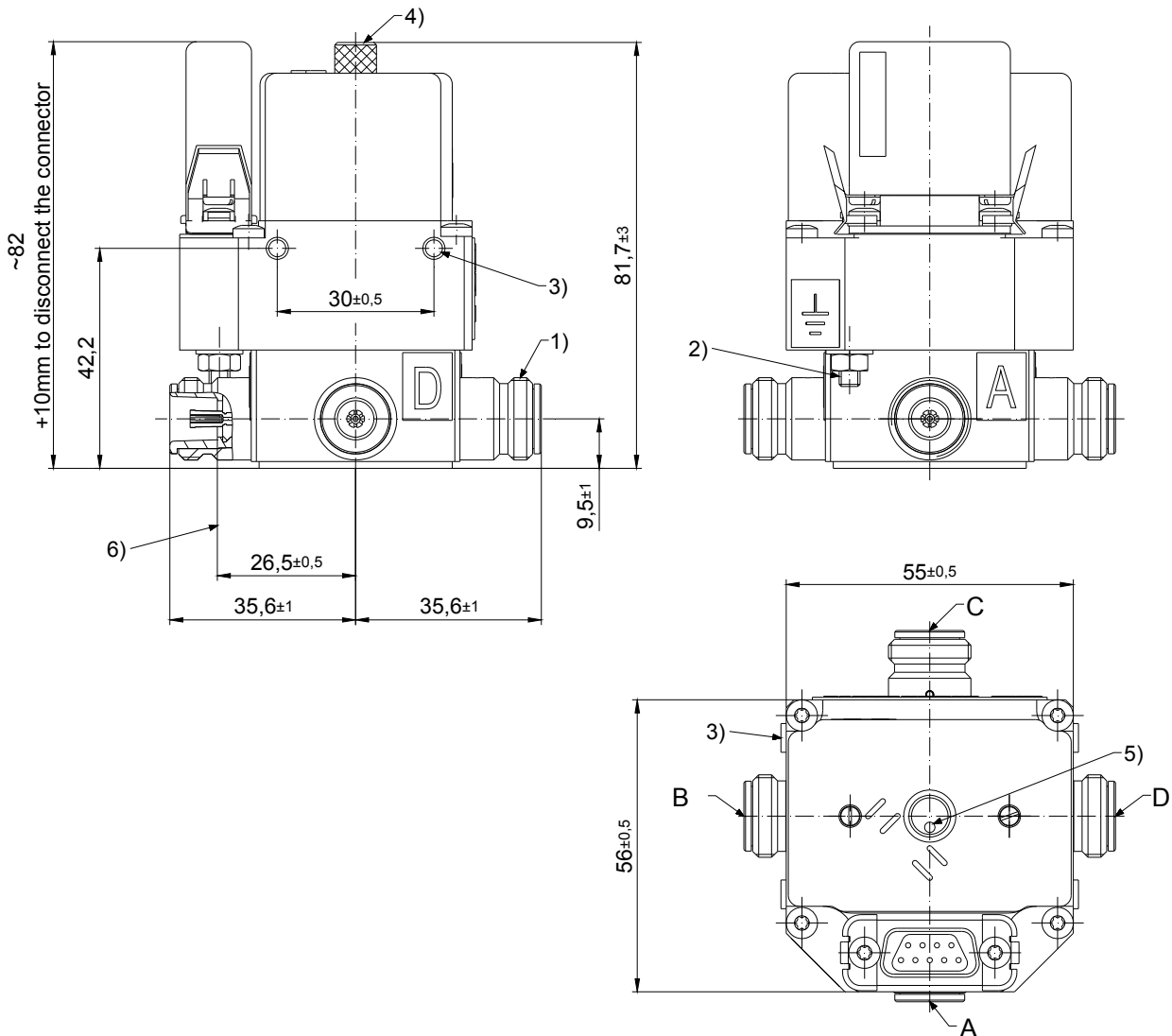
Template TD-00002P

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Storage conditions	ETSI EN 300 019-1-1 V2.1.4 (2003-04) class 1.2
Ambient temperature	-10 to +45°C
Rain, condensation, icing	Not allowed

- * Standard conditions:
 Dielectric: Dry air under standard pressure at sea level ($p = 1013 \text{ hPa}$)
 Load VSWR, max. 1.0 (no standing wave)
 No modulation, sinusoidal carrier only
- ** Suitable mating connector included
- *** At room temperature and nominal voltage 28 V DC
- **** Extended temperature range on request

Outline (all dimensions in millimeters)



- 1) RF connectors: N female (50 Ohms)
- 2) Ground connection (M4)
- 3) Two threaded mounting holes M4/5 deep on both sides
- 4) Manual operation
- 5) Position indication
- 6) Reference plane

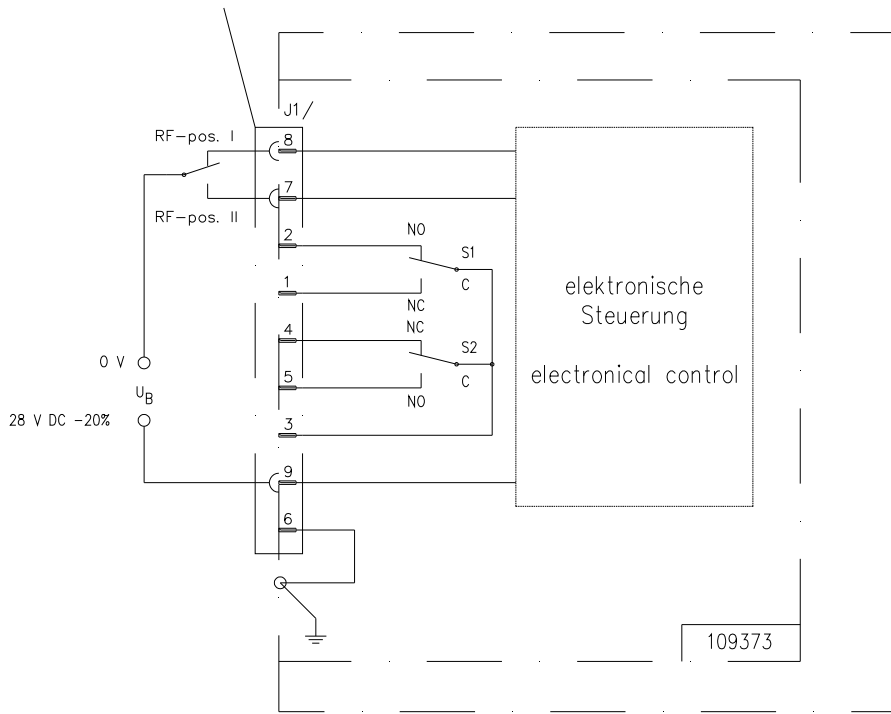
RF connection
 RF position I: A-B / C-D
 RF position II: A-D / B-C

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Circuit diagram (49289-0E, Issue C)

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9-poliger Stecker (DIN 41652)
 maximale Kontaktbelastung 42,4 V AC_{pk} / 60 V DC / 0.5 A
 9 pole connector (DIN 41652)
 maximum contact ratings 42.4 V AC_{pk} / 60 V DC / 0.5 A



HF-Position I dargestellt
 shown in RF position I

HF-Durchgang A-B / C-D
 RF-connection A-B / C-D

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ALL DIMENSIONS ARE PRODUCTION DIMENSIONS, I.E. SURFACE THICKNESS HAS NOT TO BE CONSIDERED.			DIMENSIONS WITHOUT TOLERANCES ACCORDING DIN ISO 2768-m PART 1		PROJECTION E	CORNERS ACCORDING WN 50 000, IF NOT SPECIFIED OTHERWISE.	
NOMINAL DIMENSIONS	FROM 0.5 UP TO 6 ±0.1						
	GREATER THAN 6 UP TO 30 ±0.2						
	GREATER THAN 30 UP TO 120 ±0.3						
	GREATER THAN 120 UP TO 400 ±0.5						
TOLERANCES OF FORM AND POSITION ACCORDING WN 50 001			FINISH:				
TOLERANCES OF THREADS ACCORDING WN 50 020 / WN 50 107			MATERIAL:				
		DATE	NAME	DESIGNATION:			
		DRAWN	23.01.1998	Samusch	Stromlaufplan circuit diagram for coaxial-two-way-switch, solenoid drive		
		WROUGHT	02.12.2009	Hartmann			
		CHECKED	14.01.2010	Hartmann			
C	CAD14upd	02.12.2009	Hartmann	DRAWING-NR.:			
B	69780	10.04.2003	Marek	49289-0E			
ISS.	MOD.NR.	DATE	NAME	FORMAT SCALE			
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